



A Warner Communications Company

BOOKS, MANUALS AND LITERATURE

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from EDU-WARE software

Compu-Read 3.0	24.00
Compu-Math: Fractions	32.00
Compu-Math: Decimals	32.00
Visicalc for Atari	190.00
Jawbreaker - disk - Online	27.00
Ghost Hunt - tape	24.00
- disk	30.00
Computers First Book of Atari	11.00
Inside Atari DOS	18.00

ATARI SPECIALS 1 July 1982

Atari 400 - 16K	(399)	269
Atari 800 - 16K	(899)	675
Atari 410 Program Recorder	(99)	78
Atari 810 Disk Drive	(600)	440
Atari 820 40-Column Printer (Impact)	(300)	265
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Atari 825 80-Column Printer (Impact)	(800)	629
Atari 830 Acoustic Modem	(200)	155
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Percom Double Density Drive w/controller	(799)	595
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AB COMPUTERS, INC
252 Bethlehem Pike
Colmar, PA 18915



INFORMATION REQUESTED FROM	
BUTE the small systems journal	
CBM-PET SPECIALS 11	
MARK C BESSERT 199 HEMENWAY RD FRAMINGHAM MA 01701	
E* ADV	

KMMM Pascal for PET/CBM \$85

A subset of standard Pascal with extensions.

- Machine language Pascal Source Editor with cursor oriented window mode
- Machine Language P-Code Compiler
- P-Code to machine language translator for optimized object code
- Run-time package
- Floating point capability
- User manual and sample programs

Requires 32K Please specify configuration.

EARL for PET (disk file based) \$65

Editor, Assembler, Relocater, Linker

Generates relocatable object code using MOS Technology mnemonics. Disk file input (can edit files larger than memory). Links multiple object programs as one memory load. Listing output to screen or printer. Enhanced editor operates in both command mode and cursor oriented "window" mode.

RAM/ROM for PET/CBM

4K or 8K bytes of soft ROM with optional battery backup.

RAM/ROM is compatible with any large keyboard machine. Plugs into one of the ROM sockets above screen memory to give you switch selected write protectable RAM.

Use RAM/ROM as a software development tool to store data or machine code beyond the normal BASIC range. Use RAM/ROM TO LOAD A ROM image where you have possible conflicts with more than one ROM requiring the same socket. Possible applications include machine language sort (such as SUPERSORT), universal wedge, Extramon, etc.

RAM/ROM -- 4K \$85
RAM/ROM -- 8K 120
Battery Backup Option 30

SUBSORT by James Strasma \$35

Subsort is an excellent general purpose machine language sort routine for PET/CBM computers. Sorts both one and two dimensioned arrays at lightning speed in either ascending or descending order. Other fields can be subsorted when a match is found, and fields need not be in any special order. Sort arrays may be specified by name, and fields are random length. Allows sorting by bit to provide 8 categories per byte. The routine works with all PET BASICs, adjusts to any memory size, and can co-exist with other programs in high memory.

SuperGraphics 2.0 NEW Version with TURTLE GRAPHICS

SuperGraphics, by John Fluharty, provides a 4k machine language extension which adds 35 full featured commands to Commodore BASIC to allow fast and easy plotting and manipulation of graphics on the PET/CBM video display, as well as SOUND Commands. Animations which previously were too slow or impossible without machine language subroutines now can be programmed directly in BASIC. Move blocks (or rocketships, etc.), or entire areas of the screen with a single, easy to use BASIC command. Scroll any portion of the screen up, down, left, or right. Turn on or off any of the 4000 (8000 on 8032) screen pixels with a single BASIC command. In high resolution mode, draw vertical, horizontal, and diagonal lines. Draw a box, fill a box, and move it around on the screen with easy to use BASIC commands. Plot curves using either rectangular or polar co-ordinates (great for Algebra, Geometry and Trig classes.)

The SOUND commands allow you to initiate a note or series of notes (or even several songs) from BASIC, and then play them in the background mode without interfering with your BASIC program. This allows your program to run at full speed with simultaneous graphics and music.

Seven new TURTLE commands open up a whole new dimension in graphics. Place the TURTLE anywhere on the screen, set his DIRECTION, turn him LEFT or RIGHT, move him FORWARD, raise or lower his plotting pen, even flip the pen over to erase. Turtle commands use angles measured in degrees, not radians, so even elementary school children can create fantastic graphic displays.

Specify machine model (and size), ROM type (BASIC 3 or 4)
SuperGraphics (disk or tape) \$ 40
SuperGraphics in ROM 55
Volume discounts available on ROM version for schools.



for PET/CBM Computers

Self Calculating DATA BASE REPORT WRITER MAILING LIST

FLEX-FILE is a set of flexible, friendly programs to allow you to set up and maintain a data base. Print files with a versatile Report Writer or a Mail Label routine. Programmers will find it easy to add subroutines to their own programs to make use of Data Base files.

RANDOM ACCESS DATA BASE

Record size limit is 250 characters. The number of records per disk is limited only by the size of each record and the number of records per disk is limited only by the size of each record and the amount of free space on the disk. File maintenance lets you step forward or backward through a file, add, delete, or change a record, go to a numbered record, or find a record by specified field. The Find command locates any record when you enter all (or a portion of) the desired key. Field lengths may vary from record to record to allow maximum packing of information. Files may be sorted by any field, and any field may be specified as a key. Sequential files from other programs may be converted to Flex-File format, and Flex-File records may be converted to sequential (WordPro, PaperMate, other word processors may also use Flex-File data). Maximum record size, fields per record, and order of fields may be changed at any time.

MAILING LABELS

With typical record size of 127 characters, each disk can handle over 1000 records (about 2800 with 8050 drive). Labels may be printed any number wide, and may begin in any column position. There is no limit on the number or order of fields on a label, and two or three fields may be joined together on one line (like first name, last name, and title). A "type of customer" field allows selective printing.

REPORT WRITER

Print any field in any column. For numeric fields, use decimal point justification (and round to any accuracy). Define any column as a series of mathematical functions performed on other columns. These functions include arithmetic operations and various log and trig functions. Pass results of operations such as running total from row to row. At the end of the report, print total and/or average for any column. Complete record selection, including field within range, pattern match, and logical functions can be specified individually or in combination with other parameters.

FLEX-FILE BY Michael Riley \$80

Please specify equipment configuration when ordering.

COLORCHART Color Video Board \$125

Up to 8 colors and high resolution graphics (128 x 192 in 2 colors). Generates composite video for use with monitor.

PEDISK II from cgrs Microtech

5" 40 track, 1 drive, 143K \$525
5" 40 track, 1 drive, 286K 690
8" IBM 3740 format, 77 track, 250K 995

PROGRAM YOUR OWN EPROMS

Branding Iron for PET/CBM \$79
EPROM Programmer with software for all ROM versions. Includes all hardware and software to program or copy 2716 and 2532 EPROMs.

PORTMAKER DUAL RS232 SERIAL PORT 63
Two ports with full bipolar RS232 buffering. Baud rates from 300 to 4800. For PET/CBM, AIM, SYM.

CBM Software

Legal Time Accounting Package 445
Medical Accounting Package
Dow Jones Portfolio Management 129
Personal Tax Calculator 65
Wordcraft 80 Wordprocessor Package 325
Pascal Development Package 235
Assembler Development Package 99
Intelligent Terminal Emulator 30
Softpac-1 (Competitive Software) 29

FORTH for PET

BY L. C. Cargile and Michael Riley \$50

Features include:

- full FIG FORTH model.
- all FORTH 79 STANDARD extensions.
- structured 6502 Assembler with nested decision making macros.
- full screen editing (same as when programming in BASIC).
- auto repeat key.
- sample programs.
- standard size screens (16 lines by 64 characters).
- 150 screens per diskette on 4040, 480 screens on 8050.
- ability to read and write BASIC sequential files.
- introductory manual.
- reference manual.

Runs on any 16K or 32K PET/CBM (including 8032) with ROM 3 or 4, and CBM disk drive. Please specify configuration when ordering.

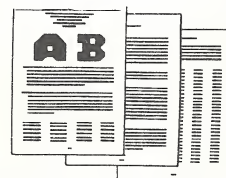
Available soon:

Metacompiler for FORTH \$30

Simple metacompiler for creating compacted object code which can be executed independently (without the FORTH system).

PaperMate 60 COMMAND WORD PROCESSOR

by Michael Riley



Paper-Mate is a full-featured word processor for CBM/PET. Paper-Mate incorporates 60 commands to give you full screen editing with graphics for all 16K or 32K machines (including 8032), all printers, and disk or tape drives.

For writing text, Paper-Mate has a definable keyboard so you can use either Business or Graphics machines. Shift lock on letters only, or use keyboard shift lock. All keys repeat.

Paper-Mate text editing includes floating cursor, scroll up or down, page forward or back, and repeating insert and delete keys. Text block handling includes transfer, delete, append, save, load, and insert.

All formatting commands are imbedded in text for complete control. Commands include margin control and release, column adjust, 9 tab settings, variable line spacing, justify text, center text, and auto print form letter (variable block). Files can be linked so that one command prints an entire manuscript. Auto page, page headers, page numbers, pause at end of page, and hyphenation pauses are included. Unlike most word processors, CBM graphics as well as text can be used. Paper-Mate can send any ASCII code over any secondary address to any printer.

Paper-Mate functions with 16/32K CBM/PET machines, with any printer, and with either cassette or disk.

To order Paper-Mate, please specify configuration.

PaperMate on disk or tape 40.00

PaperMate works on 16K VIC Computer also.

BASIC INTERPRETER \$200

Designed to support the CBM 8096 (8032 with add-on 64K board). A full interpreter implementation to automatically take advantage of the extra memory available to the 8032.

BPI General Ledger -- 8032/8050 300
BPI Accounts Receivable -- 8032/8050 300
BPI Inventory -- 8032/8050 300
BPI Job Costing 300
BPI Payroll 300

JINSAM Data Base Management System for CBM. Comprehensive version available for most configurations.

COPY-WRITER Word Processor 159

Works like expensive word processors, plus has added features like double column printing, and shorthand generator. For PET/CBM and Apple.

CASH MANAGEMENT SYSTEM \$45

Easy to use. Keeps track of cash disbursements, cash receipts, cash transfers, expenses for up to 50 categories.

WRITE FOR CATALOG

Add \$1.25 per order for shipping. We pay balance of UPS surface charges on all prepaid orders. Prices listed are on cash discount basis. Regular prices slightly higher. Prices subject to change.

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A B Computers

PRINTERS

Prices June 1982

EPSON PRINTER PRICES

MX-80 tractor feed with Grafrax	(645)	449
MX-80 FT friction and tractor with Grafrax	(745)	499
MX-100 wide carriage, frict, tractor, Graf.	(995)	699
Grafrax Graphics ROM retrofit	(95)	65
8141 Serial Interface	(75)	65
8150 Serial with 2K buffer	(149)	100
8155 Serial - 4K buf, ACK and X-on, X-off	(169)	135
8161 IEEE Interface-no cable	(60)	54
2 meter IEEE Cable (specify type)		40
8131 Epson Apple Parallel Interface	(85)	70
8232 Epson Apple Cable	(35)	30
8220 TRS-80 Cable for Exp Int or Mod III	(35)	27
Cable - Atari 850 to Epson or Centronics		25
MX-80 Low Noise Print Head		44
MX-80, MX-70, or CBM 4022 Cartridge Ribbon		10
MX-100 Ribbon Cartridge		24
MX-100 Refill for Cartridge		8

Diablo 630 RD Daisy Wheel Printer (OEM Version) 1750
Limited offer -- while our supply lasts.

Itoh Daisy Wheel Printers

Feature bi-directional print capability, highspeed horizontal skip over spaces, 15" carriage, uses Diablo compatible wheels and ribbon cartridges.

Itoh F10 Printmaster Parallel	(1995)	1445
Serial	(1995)	1445
Tractor Feed Option	(325)	195

NEC Spinwriter Printers available by special order.

Centronics 739	575
Dot matrix (9 high) with proportional spacing, as well as 10 and 16.7 cpi.	
Standard with high resolution DOT GRAPHICS.	
Ribbon for Centronics 739	4

Mannesman-TALLY Printers for Commodore Computers.

Heavy duty commercial quality printers with logic-seeking high speed bi-directional capability.	
8024-7 7 high dot	(1595) 1300
8024-9 9 high dot	(1795) 1460
8024-L 9 high dot with multi-pass correspondence quality print.	(1995) 1635

Tally Ribbon Cartridge 7
Note: Tally printer prices do not include shipping.

RIBBON for CBM 2022 or 2023 Printers	2.45
RIBBON for CBM 8023 Printer	13.00
High Type II Ribbon (used in 8300 printer)	6.50

Printer Paper (fanfold-prices do not include shipping.)
8.5x11 (9.5x11 w/ tearoffs) 20# 2600 sheets 30
14 7/8 x 11 20# 2700 sheets 34

LABELS for Centronics 739/730, other printers with 9.5" pinfeed. Self-adhesive 3 up 40.00 for 15000

LABELS (1 wide) - self adhesive 15.00 for 5000

AMDEK

VIDEO-100 12" black/white	(110)	80
VIDEO-300 12" green 18 megahertz	(199)	140
COLOR I 13" Color	(499)	310
COLOR II 13" RGB	(899)	690
COLOR III 13" RGB	(569)	400
DVM BOARD	(199)	120
Apple III Converter	(40)	30
16 Color Modulation Kit - Color II	(10)	8
COLOR IV 13" RGB (720 x 420)	(1299)	950
AMDRIVE 3" Dual MicroDisk Drive	(899)	630
Plug-compatible to 5" drive		
AMPLLOT 11 x 14 plot area	(949)	670

POWERMATE Multiple Outlet Power Strips by GSC

All units are UL and CSA approved heavy duty units with circuit breaker protect in, aluminum cases.

9PS4-6 switch, 4 outlets, 15A circuit breaker.	16.
12PLS6-6 switch, 6 outlets, 15A breaker, pilot light.	20.
12LSC8-6 individual lighted switches with 8 outlets.	40.
9LSC4-6 individual lighted switches with 4 outlets.	27.
CR21 6 outlets, ckt breaker, special 21 foot cord reel.	20.

ISOBAR Line/Noise Filter - Surge Suppressor Units (UL):

ISOBARS include circuit breaker, pilot light, switch.	
IBAR4-6 4 individually isolated outlets.	48.
IBAR8-6 8 outlets (4 individually isolated pairs).	55
Special Version 9LSC4-6 with line surge protection.	40

The SM-KIT is a collection of machine language firmware programming and test aids for BASIC programmers. SM-KIT is a 4K ROM (twice the normal capacity) which you simply insert in a single ROM socket on any BASIC 4 CBM/PET-either 80 column or 40 column. Includes both programming aids and disk handling commands.

ERROR DETECTION: the SM-KIT automatically indicates the erroneous line and statement for any BASIC program error.

LINE NUMBERING: the SM-KIT automatically numbers BASIC statements until you turn the function off.

SCREEN OUTPUT: the commands FIND, DUMP, TRACE and DIRECTORY display on the CRT while you hold the RETURN key (display pauses when the key is released). Continuous output is selected with shift-lock.

OUTPUT CONTROL to DISK or PRINTER: in addition to displaying on the CRT, you can direct output to either disk or printer.

HARDCOPY: allows screen displays to be either printed or stored on disk.

FIND: searches all or any part of a program for text or command strings or variable names. Either exact search or wild card search supported.

RENUMBER: the SM-KIT can renumber all or any part of a program. The selective renumbering allows you to move blocks of code within your program.

VARIABLE DUMP: displays the contents of floating point, integer, and string variables (both simple and array). Can display all variables or any selected variables.

TRACE: SM-KIT can trace program execution either continuously or step by step starting with any line number. Selected program variables can be displayed while tracing.

DISK COMMANDS: as in DOS Support (Universal Wedge), the "shorthand" versions of disk commands may be used for displaying disk directory, initializing, copying, scratching files, load and run, etc.

LOAD: SM-KIT can load all or part of BASIC or machine language programs. It can append to a program in memory, overwrite any part of a program, load starting with any absolute memory location, and load without changing variable pointers.

MERGE: allows merging all or any part of a program on disk with a program in memory.

SAVE and VERIFY: SM-KIT provides one step program save and verification. It also allows you to save any part of a program, or any address range.

DELETE: allows any program segment to be deleted.

REPEAT KEYS: allows repeating functions if not already available on specific PET/CBM model.

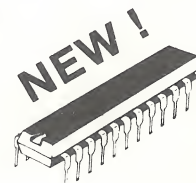
SM-KIT

for Commodore Computers

A Programming Productivity Tool



ONLY
\$40



A 4K ROM with both programming and disk handling aids.

Developed by (and available in Europe from) SM Softwareverbund-Microcomputer GmbH, Scherbaumstrasse 29, 8000 Munchen 83, Germany

WRITE FOR CATALOG.

Add \$1.25 per order for shipping. We pay balance of UPS surface charges on all prepaid orders. Prices listed are on cash discount basis. Regular prices slightly higher.

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Datalife™

SPECIAL

3M-744-D Series--in soft boxes of 10
Buy 40 disks, RECEIVE 10 FREE while supply lasts.

3M 'SCOTCH' Brand Disks SHOW SPECIALS -- July 1982

5" Disks (all 3M 5" disks have hub rings)

3M-744-0, 10, or 16

10/2.45 50/2.35 100/2.30 200/2.25 400/2.20 800/2.15

3M-744D-0, 10, or 16 single side, double density

10/2.90 50/2.75 100/2.70 200/2.65 400/2.60 800/2.55

3M-745-0, 10, or 16 (2 side - double density)

10/3.50 50/3.35 100/3.27 200/3.20 400/3.12 800/3.05

8" Disks

3M-740-0 or 32 (soft or 32 sector)

10/2.60 50/2.45 100/2.40 200/2.35 400/2.30 800/2.25

---Add .05 per disk for write protect notch.

3M-741-0 or 32 - single side, double density

10/3.25 50/3.10 100/3.03 200/2.97 400/2.90 800/2.82

3M-741-0 RX02 Format (for DEC)

10/3.35 50/3.10 100/3.03 200/2.97 400/2.90 800/2.82

3M-743 2 side, double density

10/4.20 50/3.95 100/3.90 200/3.80 400/3.70 800/3.60

---Add .15/disk for 256, 512, or 1024 format.

3M-740/2-0 single density reversible (floppy)

10/4.55 50/3.95 100/3.90 200/3.80 400/3.70 800/3.60

3M-740-0 8000 CPT format - 1 side, single density

10/3.30 50/2.75 100/2.70 200/2.65 400/2.60 800/2.55

3M-742-0 double side, single density

10/4.80 50/4.20 100/4.12 200/4.04 400/3.94 800/3.84

3M-511 32 sector (outer diameter for Vydec, Memorex)

10/4.60 50/4.20 100/4.10 200/4.00 400/3.85 800/3.60

Scotch Disk Drive Head Cleaning Kits.....\$21.50

Kit includes 2 head cleaning diskettes, cleaning solution,

and dispenser cap. Specify 7400 for 8" kit, 7440 for 5" kit.

3M 'Scotch' Glare Reducing CRT Film

Preformed panel for all CRTs. Reduce eye strain, glare; increase

contrast. Abrasion resistant.

Panel for 9" CRT\$8.90 For 12" CRT\$13.90

3M Disk Cartridges

3M-910 Series - front load\$71.00 5/ 65.00

3M-920 Series - top load.....\$82.00 5/ 77.00

3M-933.....\$130.00 5/ 118.00

3M-940 - 16 megabyte.....\$248.00 5/ 225.00

3M Certified Data Cartridges

DC 100A for Hewlett-Packard 85, etc.....\$15.85 5/ 14.25

DC 300A for IBM, Tektronix, etc.....\$20.45 5/ 18.25

DC 300XL 50% longer than DC300A.....\$22.90 5/ 19.90

DISK ACCESSORIES

DISKETTE STORAGE PAGES 10/40 100/36 200/33

Frosted vinyl pocket pages for standard 3 ring binders. Diskettes are

protected but remain visible and accessible. 8" disks stored one

per page with an extra pocket for labeling. 5" disks stored two

per page with 2 label pockets.

PLASTIC LIBRARY CASES FOR FLOPPY DISKS

Kas-ette/10 for 8" disks.....2.85 10/2.65 32/2.45

MiniKas-ette/10 for 5" disks.....2.15 10/1.95 60/1.75

DISK HUB REINFORCING RINGS

8" Rings (011795).....pack of 50 7.50

5" Rings (011095).....pack of 50 6.00

8" Applicator.....3.85

5" Applicator.....2.95

VERBATIM DISKS

Verbatim Disks are new Datalife type. 5" disks include hub rings.

5" Disks -- add .10/disk (\$1/box) for plastic box

525-01 (soft), 10, or 16 - double density, 40 track

10/2.45 50/2.40 100/2.35 200/2.30 500/2.20

550-01, 10, 16 - 2 side, double density

10/3.70 50/3.60 100/3.45 200/3.35 500/3.30

577-01, 10, 16 - 1 side, 96 tracks per inch

10/3.30 50/3.25 100/3.15 200/3.05 500/2.95

557-01, 10, 16 - 2 side, 96 tracks per inch

10/4.30 50/4.25 100/4.15 200/4.05 500/3.95

--add 1.00 (10 per disk) for Verbatim 5" plastic box--

8" Disks

9000 Series - Critical Certification - soft or 32

10/2.95 50/2.85 100/2.75 200/2.70 500/2.60

8000 Series - 1 side, double density - soft or 32

10/3.45 50/3.35 100/3.20 200/3.10 500/3.00

4000 Series - 2 side, double density (DD34-4000)

10/4.00 50/3.90 100/3.80 200/3.75 500/3.65

Verbatim Head Cleaners

5" Kit (includes envelope and 2 cleaner disks)\$7.00

8" Kit (includes envelope and 2 cleaner disks)\$7.00

5" Cleaner Disks (refill pack of 10 cleaners)\$13.50

8" Cleaner Disks (refill pack of 10 cleaners)\$13.50

Write/call for price quotes on other Verbatim products.

wabash®

WABASH DISKS - SHOW SPECIALS ----- July 1982

Wabash disks are now Shugart approved.

5" Disks

1 side, 40 track, 1, 10, or 16 sector (M11,M41,M51)

10/ 1.70 50/1.65 100/1.60 200/1.55 400/1.50

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VisiTrend/Plot	(300) 225
VisiPlot	(200) 150
VisiDex	(250) 190
VisiFile	(250) 190
VisiTerm	(100) 75
VisiSchedule	(300) 225
VisiPack	(700) 590
(VisiCalc, VisiTrend/VisiPlot, VisiFile)	
Desktop/PLAN II	(250) 190
Desktop/PLAN III	(300) 225

EDU-WARE software	
Spelling Bee with Reading Primer	\$32.00
Compu-Read 3.0	24.00
Compu-Spell (System Diskette)	24.00
Level 4 Compu-Spell Data	16.00
Level 5 Compu-Spell Data	16.00
Counting Bee	24.00
Compu-Math: Arithmetic Skills	40.00
Compu-Math: Fractions	32.00
Edu-ware Fractions 3.0	40.00
Compu-Math: Decimals	32.00
Edu-ware Decimals 3.0	40.00
Algebra 1	32.00
Algebra 2	32.00
Perception 3.0	20.00
Statistics 3.0	32.00
Empire I World Builders	26.50
The Prisoner	32.00
Terrorist	32.00
Rendezvous	32.00

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COMMODORE VIC-20

VIC 20 prices 1 July 1982

VIC-20 Color Computer	\$239.00
C2N Cassette Recorder	65.00
VIC 1540 Single Disk Drive	500.00*
VIC 1515 Graphic Printer	335.00
VIC Printer Paper (1000 sheets/pack)	15.00
VIC Printer Ribbon Cartridge	8.50
16K Memory Expander	99.00
8K Memory Expander	53.00
3K Memory Expander	32.00
RS232C Terminal Interface	42.50*
VIC IEEE-488 Interface Cartridge	90.00*
VIC 20 Super Expander	53.00
Programmers Aid Cartridge	45.00
VICOM Machine Language Monitor	45.00
VICTerm I - Terminal Emulator	9.00*
Programmers Reference Guide	15.00
Programmable Character Set/Gamegraphics Editor	12.75
Introduction to Computing	22.50*
Introduction to Basic Programming	22.50
Recreation Program Pack A	44.00
Car Chase; VIC 21; Blue Meanies; Biorhythm; Spacemath; Super Slither (\$8 each individually)	
Home Calculation Program Pack A	\$44.00*
Personal Finance I; Personal Finance II; VIC Typewriter - Word processor for home use	
Expense Calendar - Income, expenses, appointments	
Loan/Mortgage; Home Inventory	
The Cube (very nice Rubik Cube graphics)	13.00
Snakman (add a joystick and play Pakman)	13.00
Superslot	23.00
Super Alien	23.00
Jupiter Lander	23.00
Draw Poker	23.00
Vic Avengers	23.00
Midnight Drive	23.00
Chipaway (requires paddles)	7.00
Moon Mission	7.00
Microcoder - machine language	10.00
United Microware for VIC:	
Amok	17.00
Alien Blitz	22.50
Raceway	12.75
ViCalc	14.00
Simon	9.00
Spiders of Mars	40.00
Space Division	11.00
Sky Math	11.00
Human Engineered Software for VIC:	
HESBAL - Editor & Assembler	20.00
HESPLIT - High Resolution Plotter	13.75
HESCOM - Hardware and software to connect VIC-20 and PET to exchange data	42.50
Victory Software for VIC:	
Treasures of the Bat Cave (adventure in a maze)	16.00
Cosmic Debris - keyboard or joystick	12.00
Trek (classic Startrek version)	10.50
Grave Robbers (graphic adventure with sound)	11.50
Victory Casino (3 games of chance)	8.00
Street Sweepers (eat the dots before pursuing thing gets you in unique maze setting)	12.00
GAMES PACK I (3 programs)	12.00
includes Cage, Atomic Charger, Suicide Squad	
GAMES PACK II (3 programs)	12.00
includes Gotchal, Toasters, Mimic	
Night Rider - machine language driving test	10.50
ADVENTURE PACK I (Big Bad Wolf/3 Little Pigs, Computer Adventure, and Moon Base Alpha)	12.00
ADVENTURE PACK II (African Escape, Hospital Adventure, and Bomb Threat)	12.00
Maze (3-D maze with machine language action)	12.00
States & Capitals	5.00
Mancala	7.50
Masterword	5.00
Bounce	5.00
from PR Software	
Saucer Smash	9.95
Space Barrier	9.95
Car Jump	9.95

*Not Yet Available

Prices June 1982

Software for CBM/PET

Power -utilities ROM - Profess. Software	(90)	80
Modeware IV		35
PMAC Disk - disk oriented assembler/ed.	(170)	149
6502 MAE & TED Tape		44
Commando		70
T C Solar 4+ - astronomical calculation routines		50
Program Disk by Robert Baker - for 8050 or 4040		30
Adventure (original version)		10
adapted for Commodore on 8050 or 4040		
Help Disk collection by Jim Strasma		10
referenced in 3rd edition of PET/CBM Personal Computer Guide		
8032 Game & Demo Disk (incl. breakout, hangman)	10	
Source Code on disk (4040 or 8050) for PET	5	
Graphics book by Hampshire (with purchase of book)		
Source Code on disk (4040 or 8050) for Library of PET Subroutines book by Hampshire (with purchase of book)	5	

Prices June 1982

Word Processors

CopyWriter - new full-featured package	(185)	150
- most of WordPro 3+ and 4+ features plus others		
WordPro 2+ - disk or tape	(200)	150
WordPro 3+ - 32K, disk, printer	(295)	195
WordPro 4+ - 8032, disk, printer	(450)	300
WordPro 5+ - 8032, disk, printer	(450)	300
Wordcraft 80 by Commodore	(395)	325
PaperMate 60 Command		40
VISICALC for PET/CBM	(250)	\$190
BASIC PROGRAMMERS TOOLKIT for PET	(49.95)	35
Routines provide: AUTO LINE NUMBERING; DELETE; RENUMBER; TRACE; STEP (single step Trace); APPEND (tape to memory); DUMP; FIND (find strings or variables)		

cgrs Microtech PEDISK II Disk Controller for CBM/PET.

Plugs into CBM Computers to control 5" or 8" drives.		
System provides speed, reliability, IBM compatibility.		
5" 40 track (143K)		525
2 drives		795
5" 40 track (286K)		690
2 drives		1065
8" IBM 3740 format		990
2 drives		1510

Connecticut microComputer

ADA 1450 IEEE to RS-232 Adapter for PET	(149)	115
ADA 1600 IEEE to Parallel Interface	(129)	110
SADI Intelligent Serial/Parallel Unit	(300)	235
ADA 1210 IEEE to Parallel (no cable)	(90)	40
ADA 1200 IEEE to Serial (no cable)		25
ADA 730 Parallel Printer Adapter	(129)	110
PETSET		235

PETSCAN I Overview

PETSCAN allows you to connect up to 20 CBM/PET computers as a networked cluster to commonly shared disk drives and printers (up to 8 peripherals can be in the shared cluster along with the 20 computers). Operation of the PETSCAN System is completely transparent to users. Shared peripherals are accessed by each computer station operator in normal manner. Typical applications include educational clusters, and word-processing configurations sharing disk and printer.

PETSCAN controller boards plug into the IEEE port, and attach directly to the back of each computer. Each controller also has a light (LED) to indicate when the associated computer has control of the bus, thus enabling easy detection of operator caused errors. Each unit is "daisy-chained" to the next unit. Total cable runs for the cluster can exceed 100 feet to achieve desired computer workstation placement. Peripherals can be attached anywhere along the entire cable run.

PETSCAN sequentially polls each computer in the cluster within a 5 millisecond period, and upon finding a request for data transfer gives complete control of the bus to the requesting computer. After data transfer is complete, PETSCAN waits for approximately one second before resuming the scan cycle. Since only one computer is polled at a time, it is impossible for more than one computer to simultaneously access the bus. This eliminates contention and the associated data errors and "crashes" which occur without priority scanning hardware.

The base configuration includes the master scan hardware with a power supply and 9' cable to attach IEEE peripherals, plus controllers and 6' connecting cables for 3 computers. Base configuration price is \$345 (\$115 per computer).

Additional controllers with cables are \$100 each (a cluster to attach 8 computers would cost \$845, while cost to connect a full 20 computers is \$2045). For longer cables, add \$1 per foot beyond the standard lengths.

As a comparison, the MUPET (distributed by Canadian Micro Distributors, Milton, Ontario), does not have an indicator light to designate the computer having current control of the IEEE bus. MUPET requires IEEE devices to be connected only to the master controller, while PETSCAN allows peripheral connection anywhere along the entire cable run. PETSCAN plugs flush against the back of the computer, while MUPET requires extra space behind the PET. The MUPET base price to connect 3 computers in a cluster is \$750 (PETSCAN is \$345). A MUPET configuration to connect a cluster of 8 computers is approximately \$1800 (PETSCAN is \$845). In general, MUPET costs about 2 times as much as a PETSCAN configuration, yet can not control as many computer workstations.

In configurations using the printer heavily, PETSCAN was designed to optionally use a printer buffer. This allows transmissions to the printer (actually the buffer) to be accomplished very quickly, thus leaving all computers in the cluster available as normal workstations (a 64K parallel buffer can be purchased for less than \$350). Conversely, the MUPET system offers a Double MUPET which requires one computer in the cluster to be taken off-line to act as a dedicated printer controller for print files which were previously spooled to the disk.

PIE-C IEEE-Parallel Interface (149) 110
Includes CBM to ASCII translate ROM

BackPack Battery Backup System	(225)	159
Provides backup for 4000 or 8000 series Commodore.		
Floppy Backup	(225)	159
Provides backup for 4040 or 8050 drives.		

TNW Interfaces and Modems for CBM/PET

TNW 488/103 Direct Connect Modem	(389)	315
Coupler with dialer for TNW 488		150
TNW 2320 two channel bi-directional serial	(369)	295
TNW-2000 bi-directional serial interface	(229)	185
TNW-1000 PET-IEEE serial (RS-232 and 20 ma)	(129)	110
Acoustic Coupler	(189)	160
TNW-232FM Cable	(35)	30
pTERM-232 Software	(19)	16
XPTerm-103	(49)	42
XPTerm-232	(49)	42
pTWX-103	(99)	85
PAN	(12)	10

Dust Cover for PET (9" CRT) frosted vinyl cover	7
Dust Cover for CBM/PET 12" CRT	8
Dust Cover for CBM 4040 or 8050 dual drive	7

Commodore Software

TCL Pascal Version 1.6	(175)	140
Assembler Development	(100)	80
Integer Basic Compiler	(150)	120
OMAR Record Handler	(150)	120
UCSD Pascal (without board)	(175)	140
Petspeed BASIC Compiler	(300)	240
OZZ - 8050	(395)	316
OZZ - 4040	(345)	276
Wordcraft 80	(395)	316
Wordcraft 40 - 9"	(295)	236
Wordcraft 40 - 12"	(295)	236
Wordcraft 8096	(395)	316
Professional Tax Prep Sys.	(800)	640
Personal Tax Calc	(70)	56
Professional Tax (Off-season)	(300)	240
Professional Tax Update	(145)	116
Dow Jones PMS (80 col, RS232)	(150)	120
BPI A/R	(395)	316
BPI General Ledger	(395)	316
BPI Job Cost	(395)	316
BPI Inventory	(395)	316
BPI Payroll	(395)	316
Legal Time Accounting	(595)	476
Medical Acc. System	(595)	476
Atlas 1200 Service & Mainten	(595)	476
Titan Job Cost System	(595)	476
Freight Rating and Invoice	(595)	476
I.R.M.A.	(495)	396

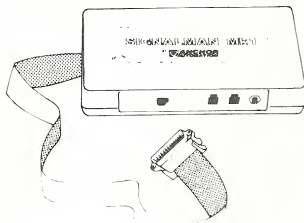
2114 RAM Adapter - allows use of the 2114 RAM to replace dead 6550s one at a time. It plugs into two 6550 sockets of the PET 8K RAM memory section.

A B Computers

SPECIALS on INTEGRATED CIRCUITS

6502	7.45	10/6.95	50/6.55	100/6.15
6502A/6512A	8.40	10/7.95	50/7.35	100/6.90
6520 PIA	5.15	10/4.90	50/4.45	100/4.15
6522 VIA	6.45	10/6.10	50/5.75	100/5.45
6532	7.90	10/7.40	50/7.00	100/6.60
2114-L200		2.45	25/2.30	100/2.15
2114-L300		2.25	25/2.10	100/2.00
2716 EPROM		4.90	5/4.50	10/4.00
2532 EPROM		8.90	5/8.45	10/7.90
6116 Hitachi 2Kx8 CMOS RAM	8.90	5/8.45	10/7.90	
4116-200 ns RAM			8 for 15	
Zero Insertion Force 24 pin Socket			2.00	
S-100 Wire Wrap Socket			2.40	

A P Products 15% OFF
A P Hobby-Blox 15% OFF



MODEM SPECIAL \$89

SIGNALMAN Mk1 from Anchor Automation
 DIRECT CONNECT Modem with RS232 Cable and Connector included. Fully compatible with all Bell 103 modems. 0 to 300 bps, full duplex, frequency shift keyed modulation, auto-select of ANSW/ORIG, direct connect, audible tone carrier detect indicator, self-contained battery powered.

Anchor ATARI Modem \$89

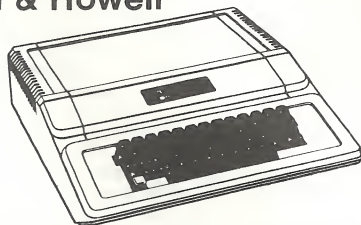
COMPACT INTELLIGENT TERMINAL PACKAGE \$115

Combines intelligent RS232 port hardware from cgrs Micro-tech with EHS Intelligent Terminal software to allow you to connect any RS232 Modem to PET/IBM.

DC HAYES Smartmodem \$230

RS232 MODEM - Acoustic \$119

We carry Apple II+ from Bell & Howell

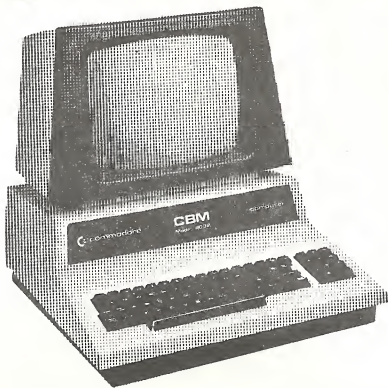


16K RAM Card for Apple 65.75

Thunderclock Plus	119
Thunderclock X-10 Interface option	40
Parallel Printer Interface/Cable	85
Grappler Interface	139
T G Products Joystick for Apple	48
T G Paddles	32
T G Select-A-Port	48
D C Hayes Micromodem II	299
Videx 80 Column Card	259
fullFORTH+ for Apple (fig-Forth)	69

REVERSAL (Spracklen) 32K Apple	28.00
Data Manager (Lutus) 24K Apple	40.00
Data-Graph (Boyd) 48K Apple	40.00
Apple II User's Guide (Osborne)	12.00
Introduction to Pascal (Sybex)	10.30
Pascal Handbook (Sybex)	12.00
Musical Applications of Micros (Chamberlin)	20.00
User Guide to the Unix System	13
6502 Assembly Language Subroutines	11
PET Fun and Games	8

commodore



Commodore CBM-PET SPECIALS

Commodore 64	(595)	465
8032 32K, 80 x 25 display	(1495)	1050
8023 Wide (136 column) printer	(995)	770
9000 SuperPET with languages	(1995)	1575
64K Board (extra 64K for 8032)	(500)	380
8050 Dual Disk Drive - 1 megabyte	(1795)	1300
8250 Dual Disk Drive - 2 megabyte	(2195)	1650
9060 5 meg hard disk	(2995)	2350
4016 full size graphics keyboard	(995)	765
4032 full size graphics keyboard	(1295)	965
4040 Dual Disk Drive - 330,000 bytes	(1295)	965
2031 Single Disk Drive - 165,000 bytes	(695)	530
4022 Tractor Feed Printer	(795)	420
C2N External Cassette Deck	(75)	65
Used CBM/PET Computers		CALL

WE WILL MATCH ANY ADVERTISED PRICE

★★★ EDUCATIONAL DISCOUNTS ★★★

PETSCAN I \$345 base price.

Allows you to connect up to 20 CBM/PET Computers to shared disk drives and printers. Completely transparent to the user. Perfect for schools or multiple word processing configurations. Base configuration supports 3 computers.

VIC 20 Color Computer	239	VIC Superslot	24
VIC 1515 Printer	335	VIC Super Alien	24
VIC 3K RAM	32	VIC Maze in 3-D	12
VIC 8K RAM	53	VIC Cosmic Debris	12
VIC 16K RAM	99	VIC Amok (JMI)	17
VIC 1540 Disk Drive	500	VIC Snakman	13
VIC Invaders	24	VIC Rubik's Cube	13
VIC Jupiter Lander	24	VIC Night Rider	11

TNW 488/103 with DAA	450
Computer's First Book of PET /CBM	11
WordPro 3 Plus - 32K CBM, disk, printer	195
WordPro 4 Plus - 8032, disk, printer	300
VISICALC for PET, ATARI, or APPLE	190
SM-KIT - PET ROM Utilities	40
Programmers Toolkit - PET ROM Utilities	35
PET Spacemaker II ROM Switch	36
2 Meter PET to IEEE or IEEE to IEEE Cable	40
Dust Cover for PET	8
IEEE-Parallel Printer Interface for PET	110
IEEE-RS232 Printer Interface for PET	120
The PET Revealed	17
Library of PET Subroutines	12
SADI Intelligent IEEE-RS232 or parallel	235
Programming the PET/CGM (Computel)	20
Compute: First Book of VIC	11
Best of Midnight Gazette	8

4 PART HARMONY MUSIC SYSTEM for PET

The Visible Music Monitor, by Frank Levinson, allows you to easily enter, display, edit, and play 4 part harmony music. Includes whole notes thru 64ths (with dotted and triplets), tempo change, key signature, transpose, etc. The KL-4M unit includes D to A converter and amplifier ready to hook to your speaker.

KL-4M Music Board with VMM Program \$60

DISK SPECIALS



SCOTCH (3M) 5"	10/2.45	50/2.35	100/2.30
SCOTCH (3M) 8"	10/2.60	50/2.45	100/2.40

WE STOCK VERBATIM DISKS

Try the new Verbatim Head Cleaner Kits			
BASF 5" or 8"	10/2.00	20/1.95	100/1.85
Wabash 5"	10/2.00	20/1.95	100/1.85
Wabash 8"	10/2.00	20/1.95	100/1.85

WE STOCK MAXELL DISKS

Diskette Storage Pages	10 for 3.95
Disk Library Cases	8" - 2.85 5" - 2.15
Disk Hub Rings	8" - 50 @ 7.50 5" - 50 @ 6.00

CASSETTES - AGFA PE-611 PREMIUM

High output, low noise, 5 screw housings.			
C-10	10/56	50/50	100/48
C-30	10/73	50/68	100/66

SPECIALS

EPSON MX-80 Printer with Grafrax+	\$ 449
EPSON MX-80 F/T Printer with Grafrax+	499
EPSON MX-100 Printer with Grafrax+	699
Zenith ZVM-121 Green Phosphor Monitor	109
OKIDATA	465
STARWRITER Daisy Wheel Printer F10	1445
D C Hayes Smartmodem	230
We Stock AMDEK Monitors	
Watanabe Intelligent Plotter 990	6-Pen 1240
BMC BM12A Green Phosphor Monitor	85
MEMORY for IBM 256K + parity	500
Staticide anti-static spray	6
dBASE II	470

ALL BOOK and SOFTWARE PRICES DISCOUNTED

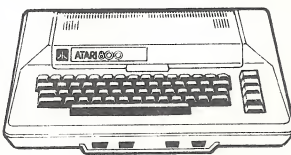
Synertek Systems

SYM-1 Microcomputer	SALE 189
SYM BAS-1 BASIC or RAE 1/2 Assembler	85
KTM-2/80 Synertek Video and Keyboard	349
KTM-3/80 Synertek Tubeless Terminal	385



data systems

Z90-80 64 K	2170
Z90-82 64K, 1 double dens. drive	2395
Z67 10 Megabyte + Floppy Drive	4495
Z37 1.3 Megabyte Dual Floppy	1495
Z25 High Speed Printer	1195
Z19 Video Terminal (VT-52 compatible)	695
ZVM-121 Green Phosphor Monitor	119
All Zenith Software discounted	
ZT-1 Intelligent Communications Terminal	550
Z100 16-bit/8-bit System	CALL



ATARI SPECIALS

800 Computer	675	Microsoft BASIC	72
400-16K	269	MISSILE COMMAND	29
810 Disk Drive	440	ASTEROIDS	32
825 Printer	629	STAR RAIDERS	37
850 Interface	170	Space Invaders	32
Inside Atari DOS	18	Music Composer	45
Paddle Pair	19	Chess	30
Joystick Pair	19	Anchor Modem-Atari	89
16K RAM	69	PAC-MAN	36
32K RAM	99	CENTPEDE	36
Pilot	68	First Book of Atari	11

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